

Ship Sept. 18

Work Order ID 165093

165093

Page 1

Tuesday, August 15, 2017 10:06:38 AM

Item ID: D119-796-025

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 9/15/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan:  Date: AUG 15 2017

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D119-796-025

A

IIN-D119-796

F

100

Pick Kit

0.00

DAS
21
9-89

SEP 21 2017

100

Packaging

Memo

0.00

Packaging

Photocopy bluefile and create labels as per PPP D119-796-025 chg 003/ D119-646-241 paperwork

110

Assemble as per dwg

0.00

110

HandFinish

Memo

0.00

Hand Finishing

ASSEMBLE AS PER DWG AND NOTES 8,9,10,11

ASSEMBLE WITH PROSEAL BATCH: 138408

2-INSTALL DECAL D2729-4

IX 17/09/25

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 165093***165093***

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Tuesday, August 15, 2017 10:06:38 AM

Item ID: D119-796-025**Accept*****N900040100*****Setup Start *NS1*****Revision ID:****Stop *NS2*****Item Name:** AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates**Start Date:** 9/11/2017 **Start Qty:** 1.00 ***1*****Cust Item ID:****Required Date:** 9/15/2017 **Req'd Qty:** 1.00 ***1*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start *NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

QC5- Inspect part completeness to step on W/O

0.00

120

QC

Memo

0.00

Quality Control

DAS
19
0-0920
17-09-25

123

Pick Kit

0.00

123

Packaging

Memo

0.00

Packaging

DAS
6
9-09

AUG 19 2017

126

QC4- 100% Inspect kits for completeness

0.00

126

QC

Memo

0.00

Quality Control

DAS
27
9-09
SEP 27 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Work Order ID 165093

Tuesday, August 15, 2017 10:06:38 AM

165093

Page 3

Item ID: D119-796-025 **Accept** ***N900040100*** **Setup Start** ***NS1***
Revision ID: **Stop** ***NS2***
Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates
Start Date: 9/11/2017 **Start Qty:** 1.00 ***1*** **Cust Item ID:**
Required Date: 9/15/2017 **Req'd Qty:** 1.00 ***1*** **Customer:**
Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start** ***NR1***
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: _____	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D119-796-025								
	Location: _____								
	PPP Rev: _____ <i>sold</i>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

DAS
27
9-89
SEP 27 2017

DAS
21
9-89
SEP 26 2017

DAS
21
9-89
SEP 26 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

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Work Order ID: 165093

165093

Parent Item: D119-796-025

D119-796-025

Parent Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017

Required Date: 9/15/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 15.08.25 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
139x89x35crate		Purchased	No			100	Each	1.0000	1	1			
139x89x35crate									**			17/09/20 <i>JS</i>	
Agusta Crate													
D119-646-241		Manufactured	No			100	Each	0.0000	2	2			
D119-646-241									**			17/09/20 <i>JS</i>	
AW119 Replacement Skidtube with Heavy Duty Wearplates - Fits LH or RH													
D119-796-151		Manufactured	No			100	Each	0.0000	1	1			
D119-796-151									**			17/09/21 <i>JS</i>	
FWD Crosstube Installation with Step (no hardware)													
D119-796-251		Manufactured	No			100	Each	0.0000	1	1			
D119-796-251									**			17/09/21 <i>JS</i>	
AFT Crosstube Installation with Step (no hardware)													
D2652		Manufactured	No			100	Each	472.0000	48	48			
D2652									**				
Bushing													

Location

Loc Qty

Loc Code

FG
31985
ST009
164472

44
44
428
428

D3407-041

Manufactured No

100 Each

4.0000

2

2

D3407-041

Tow Ring

**

Location

Loc Qty

Loc Code

st530
159443
162967

4
3
1

102204x24

83744x8

16

2

DAS
AUG 19 2017
9-89

DAS
AUG 19 2017
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Work Order ID: 165093

165093

Parent Item: D119-796-025

D119-796-025

Parent Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017

Required Date: 9/15/2017

Start Qty: 1.00

Required Qty: 1.00

D3417-5

Manufactured No

100

Each

62.0000

4

4

D3417-5

Washer

**

DAS 6
9-89
AUG 19 2017

Location

Loc Qty

Loc Code

ST034

21

158791

21

ST038A

41

163475

41

D3456-1

Manufactured No

100

Each

77.0000

2

2

D3456-1

Washer

**

DAS 6
J-89
AUG 19 2017

Location

Loc Qty

Loc Code

FG

5

25701

5

ST036

72

159500

12

162291

60

D3672-3

Manufactured No

100

Each

1,135.000

48

48

D3672-3

Washer, Phenolic

**

DAS 6
9-89
AUG 19 2017

Location

Loc Qty

Loc Code

FG

100

133083

52

134449

48

FP001

133

132639

133

ST047

402

162576

402

ST051A

500

164652

500

Tuesday, August 15, 2017 10:06:37 AM

Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

Picklist Print

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Work Order ID: 165093

165093

Parent Item: D119-796-025

D119-796-025

Parent Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017

Required Date: 9/15/2017

Start Qty: 1.00

Required Qty: 1.00

D3672-7 Manufactured No 100 Each 463.0000 48 48

D3672-7

Washer, Phenolic

**

Location Loc Qty Loc Code

FG	41	
129987	6	
133986	15	
153039	20	
ST048	422	
157442	422	

D3883-1

Manufactured No 100 Each 3.0000 2 2

D3883-1

Saddle, Outboard LH

**

AUG 19 2017

Location Loc Qty Loc Code

ST404	3	
153815	1	
161650	2	

D3883-2

Manufactured No 100 Each 4.0000 2 2

D3883-2

Saddle, Outside RH

**

AUG 19 2017

Location Loc Qty Loc Code

ST404	4	
162356	4	

D3884-1

Manufactured No 100 Each 3.0000 2 2

D3884-1

Saddle, Inside LH

**

AUG 19 2017

Location Loc Qty Loc Code

ST404	3	
161651	3	

Tuesday, August 15, 2017 10:06:37 AM

Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐							

Picklist Print

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Work Order ID: 165093

165093

Parent Item: D119-796-025

D119-796-025

Parent Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017

Required Date: 9/15/2017

Start Qty: 1.00

Required Qty: 1.00

D3884-2

Manufactured No

100

Each

4.0000

2

2

D3884-2

Saddle, Inside RH

**

DAS
6
9-89

AUG 19 2017

Location

Loc Qty

Loc Code

ST404

4

162355

4

2

D3886-041

Manufactured No

100

Each

23.0000

4

4

D3886-041

Lug Assembly

**

DAS
6
9-89

AUG 19 2017

Location

Loc Qty

Loc Code

ST528

17

157602

5

163503

4

163736

8

4

ST532A

6

156995

6

AN3C46A

Purchased

No

100

Each

365.0000

8

8

AN3C46A

Bolt

**

DAS
6
9-89

AUG 19 2017

Location

Loc Qty

Loc Code

CCK007

124

m138009

124

FG

10

122843

10

ST346

231

m138009

231

8

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Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

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Page 5

Work Order ID: 165093

165093

Parent Item: D119-796-025

D119-796-025

Parent Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017

Required Date: 9/15/2017

Start Qty: 1.00

Required Qty: 1.00

AN3C50A

Purchased

No

100

Each

198.0000

16

16

AN3C50A

Bolt

**

DAS
6
9-89

AUG 19 2017

Location

Loc Qty

Loc Code

OVER002

152

M137074

152

ST346

46

M136503

46

AN4C6A

Purchased

No

100

Each

260.0000

24

24

AN4C6A

Bolt

**

DAS
6
9-89

AUG 19 2017

Location

Loc Qty

Loc Code

FG

14

103344

4

121657

10

OVER002

100

m137963

100

ST345

146

m136318

50

m138209

96

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Shop Packet Print

Page 5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Page 6

Work Order ID: 165093

165093

Parent Item: D119-796-025

D119-796-025

Parent Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017

Required Date: 9/15/2017

Start Qty: 1.00

Required Qty: 1.00

MS21043-3

Purchased

No

100

Each

873.0000

24

24

MS21043-3

**

Nut

Location

Loc Qty

Loc Code

FG	80	
103691	80	
FP001	109	
m136182	109	
GA	51	
m136182	51	
ST302	633	
<u>m137587</u>	133	
m138040	500	

DAS
6
9-89

AUG 19 2017

24

MS21043-4

Purchased

No

100

Each

689.0000

26

26

MS21043-4

**

Nut

Location

Loc Qty

Loc Code

FG	40	
104603	40	
GA	87	
m132803	5	
m137371	82	
OVER007	300	
m137170	300	
ST302	262	
m137361	1	
<u>m137886</u>	261	

DAS
6
9-89

AUG 19 2017

26

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Page 6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause		FAULT CATEGORY									
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Picklist Print

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Work Order ID: 165093

165093

Parent Item: D119-796-025

D119-796-025

Parent Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017

Required Date: 9/15/2017

Start Qty: 1.00

Required Qty: 1.00

MS21043-5

Purchased

No

100

Each

101.0000

8

8

MS21043-5

**

DAS
6
9-8

Nut

AUG 19 2017

Location

Loc Qty

Loc Code

FG

20

101418

20

GA

71

116548

71

ST302

10

m137361

10

MS21250-05048

Purchased

No

100

Each

64.0000

8

8

MS21250-05048

**

DAS
6
9-89

Bolt (use MS21250-05-048)

AUG 19 2017

Location

Loc Qty

Loc Code

over006

30

m138064

30

ST295

34

m135948

34

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Shop Packet Print

Page 7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Picklist Print

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Work Order ID: 165093

165093

Parent Item: D119-796-025

D119-796-025

Parent Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017

Required Date: 9/15/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0332R

Purchased

No

100

Each

5,224.000

24

24

NAS1149C0332R

**

WASHER

Location

Loc Qty

Loc Code

FP001

290

m137951

290

GA

482

m133284

22

m136444

460

ST260a

3946

m137851

1946

m138207

1000

m138237

1000

ST266

506

m137381

506

NAS1149C0432R

Purchased

No

100

Each

757.0000

48

48

NAS1149C0432R

**

WASHER

Location

Loc Qty

Loc Code

GA

317

m134676

317

ST266

440

m137459

440

9-89
DAS

AUG 19 2017

9-89
DAS

AUG 19 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

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Work Order ID: 165093

165093

Parent Item: D119-796-025

D119-796-025

Parent Item Name: AW119 Landing Gear Assembly - Heavy-Duty, Run-On Landing Wearplates

Start Date: 9/11/2017

Required Date: 9/15/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0532R

Purchased

No

100

Each

297.0000

16

16

NAS1149C0532R

WASHER

**

DAS

6

9-89

AUG 19 2017

Location

Loc Qty

Loc Code

FP001

82

m135390

6

m136983

76

GA

42

116513

42

ST266

173

m137886

173

MS21920-28

Purchased

No

123

Each

109.0000

2

2

MS21920-28

Clamp

**

DAS

6

1-89

AUG 19 2017

Location

Loc Qty

Loc Code

FG

1

105884

1

LG050

104

M137075

4

M137361

25

M137508

25

M137963

25

M138238

25

LG051

1

M132169

1

LG057

2

M134130

2

st543

1

M136740

1

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DQA: _____ Date: _____



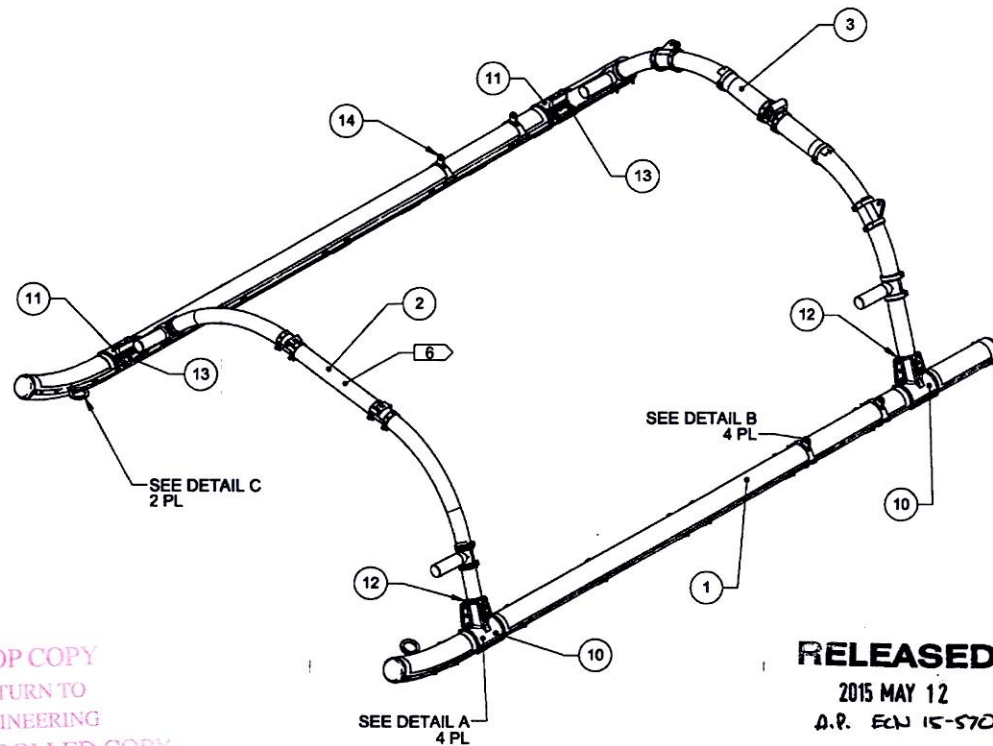
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

ITEM	QTY	P/N	DESCRIPTION
	X	D119-796-025	STD GEAR WITH TRAINING WEARPLATES
1	2	D119-646-241	STD SKIDTUBE WITH TRAINING WEARPLATES
2	1	D119-796-151	XTUBE ASSY (AW119 MKII FWD)
3	1	D119-796-251	XTUBE ASSY (AW119 MKII AFT)
4	48	D2652	BUSHING
5	2	D3407-041	TOW RING
6	4	D3417-5	WASHER
7	2	D3456-1	WASHER
8	48	D3672-3	PHENOLIC WASHER
9	48	D3672-7	PHENOLIC WASHER
10	2	D3883-1	SADDLE, OUTBOARD LH
11	2	D3883-2	SADDLE, OUTBOARD RH
12	2	D3884-1	SADDLE, INBOARD LH
13	2	D3884-2	SADDLE, INBOARD RH
14	4	D3886-041	LUG ASSEMBLY
15	8	AN3C46A	BOLT
16	16	AN3C50A	BOLT
17	24	AN4C6A	BOLT
18	24	MS21043-3	NUT, SELF-LOCKING
19	26	MS21043-4	NUT, SELF-LOCKING
20	8	MS21043-5	NUT, SELF-LOCKING
21	8	MS21250-05048	BOLT
22	24	NAS1149C0332R	WASHER
23	48	NAS1149C0432R	WASHER
24	16	NAS1149C0532R	WASHER



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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 165003

AUG 15 2017

D119-796-025 STD GEAR WITH TRAINING WEARPLATES

RELEASED
2015 MAY 12
A.P. ECU 15-570

NOTES:
1) MATERIAL: N/A
2) FINISH: NONE
3) TOLERANCES: N/A
4) UNITS: N/A
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: INSTALL D2729-4 RED DECAL IN LOCATION SHOWN
7) WEIGHT: 147.9 LBS

A		NEW ISSUE		AP	15.04.01
REV.	DESCRIPTION			BY	DATE
DESIGN	AP	DART AEROSPACE LTD		REV. A	
DRAWN	AP	HAWKESBURY, ONTARIO, CANADA		SHEET 1 OF 4	
CHECKED	AJS	DRAWING NO.		REV. A	
MFG. APPR.	DD	D119-796-025		SCALE	
APPROVED	HS	TITLE		NTS	
DE APPR.	DS	STD GEAR WITH TRAINING WEARPLATES		NTS	
DATE	15.04.01			COPYRIGHT © 2014 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.					

MS21250-05048 BOLT
NAS1149C0532R WASHER
D3672-7 WASHER
2 PL
10

D3883-1 SADDLE (LHS)
D3883-2 SADDLE (RHS)

AN3C50A BOLT
D3672-7 WASHER
D2652 BUSHING
4 PL
10

D3884-1 SADDLE (LHS)
D3884-2 SADDLE (RHS)

D3672-7 WASHER
NAS1149C0532R WASHER
MS21043-5 NUT
2 PL
10

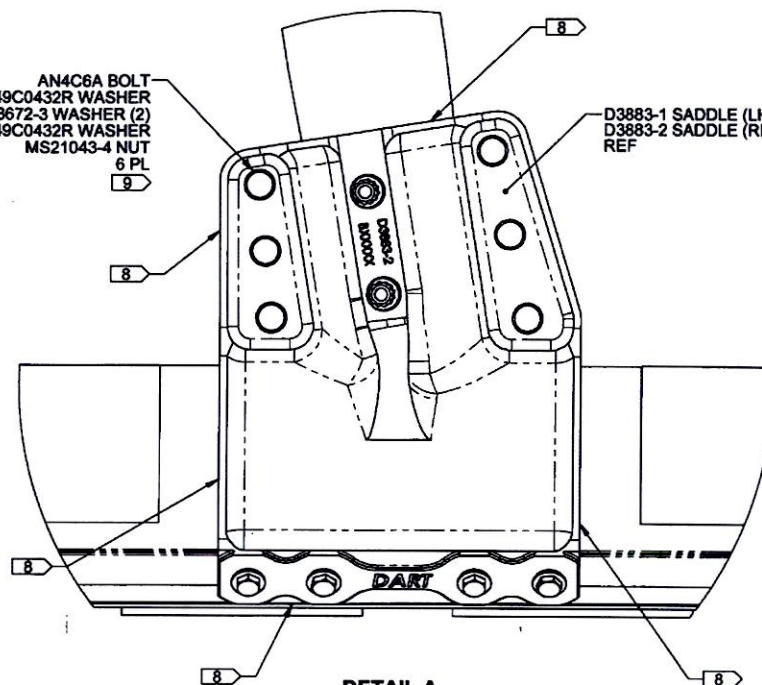
D2652 BUSHING
D3672-7 WASHER
NAS1149C0332R WASHER
MS21043-3 NUT
4 PL
10

DETAIL A
4 PL



AN4C6A BOLT
NAS1149C0432R WASHER
D3672-3 WASHER (2)
NAS1149C0432R WASHER
MS21043-4 NUT
6 PL
9

D3883-1 SADDLE (LHS)
D3883-2 SADDLE (RHS)
REF



DETAIL A



RELEASED

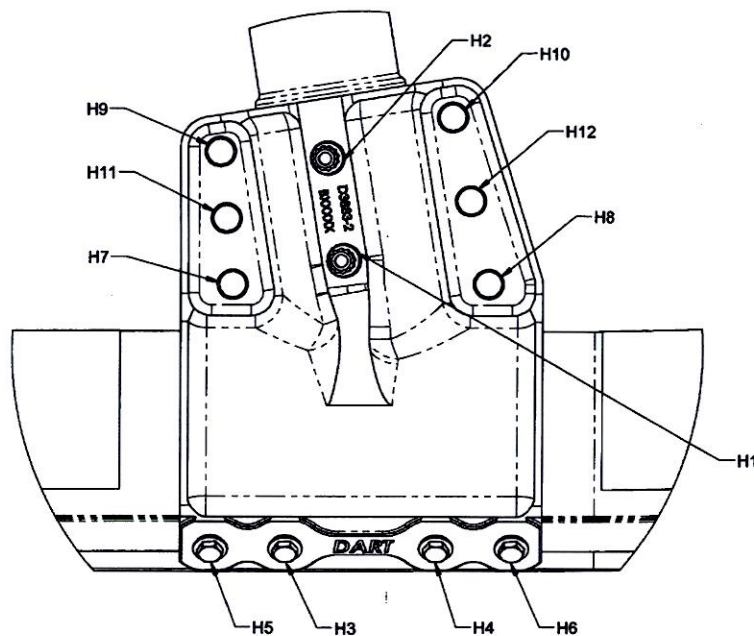
2015 MAY 12

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: N/A
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) APPLY A CONTINUOUS BEAD OF SIKAFLEX -241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT IN THE LOCATIONS SHOWN INCLUDING THE FOLLOWING:
 - A) ALONG SADDLE/CROSSTUBE INTERFACE
 - B) BETWEEN THE SADDLE FLANGES
 - C) ALONG SADDLE/SKIDTUBE INTERFACE
- 9) LIGHTLY TIGHTEN ALL BOLTS IN THE NUMERICAL ORDER SPECIFIED ON SHEET 3, THEN TIGHTEN TO SPECIFIED TORQUE IN TABLE 1.
- 10) INSTALL WET WITH SIKAFLEX -241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT
- 11) ALL NUTS TO BE INSTALLED ON THE INBOARD SIDE

APPROVED

DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	AJS	DRAWING NO.	REV. A
MFG. APPR.	DD	D119-796-025	SHEET 2 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	STD GEAR WITH TRAINING WEARPLATES	NTS
DATE	15.04.01	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	



SUPPLEMENTAL VIEW - TORQUE SEQUENCE

TABLE 1: TORQUE SEQUENCE AND MAX TORQUE

TORQUE SEQUENCE	PART NUMBER	TORQUE
H1	MS21250-05048	66-85 IN-LBS (7.3 - 9.6 n-m)
H2	MS21250-05048	66-85 IN-LBS (7.3 - 9.6 n-m)
H3	AN3C50A	15-25 IN-LBS (1.7 - 9.6 N-m)
H4	AN3C50A	15-25 IN-LBS (1.7 - 9.6 N-m)
H5	AN3C50A	15-25 IN-LBS (1.7 - 9.6 N-m)
H6	AN3C50A	15-25 IN-LBS (1.7 - 9.6 N-m)
H7	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H8	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H9	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H10	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H11	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H12	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)

RELEASED

P.O. 2015 MAY 12

APPROVED

DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	AJS	DRAWING NO.	REV. A
MFG. APPR.	DD	D119-796-025	SHEET 3 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	STD GEAR WITH TRAINING WEARPLATES	NTS
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D3407-041 TOW RING
D3417-5 WASHER
9

INBOARD

D3417-5 WASHER
D3456-1 WASHER
MS21043-4 NUT
8 9 11

DETAIL C
2 PL

D2652 BUSHING
NAS1149C0332R WASHER
MS21043-3 NUT
2 PL
8 9 10

D3886-041 LUG ASSEMBLY
9

D2652 BUSHING
AN3C48A BOLT
2 PL
8 9 10

DETAIL B
4 PL

RELEASED
P.R. 2015 MAY 12

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: N/A
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) INSTALL WET WITH SIKAFLEX -241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT
- 9) APPLY FAY SEAL AND FILLET SEAL USING SIKAFLEX -241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT
- 10) TORQUE AN3 HARDWARE TO 20-25 IN-LBS
- 11) TORQUE AN4 HARDWARE TO 50-70 IN-LBS

APPROVED

DESIGN	AP	DART AEROSPACE LTD	
DRAWN	AP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. A
MFG. APPR.	DD	D119-796-025	SHEET 4 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	STD GEAR WITH TRAINING WEARPLATES	NTS
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